

Public Forum – April 17 in Rancho Cucamonga

The following Q&A section follows the same structure as the presentations.

INTRODUCTION

PROGRAM STATISTICS

Comment (CPUC): In the Staff Report that's emailed out to the service list, there's a typo in page 2. Last year, the NSHP only installed 8 kW of new systems; the report says 8 MW. That program got off a slow start because of the new construction timeline; this is not unexpected. However, the CEC recently confirmed that actually 8 MW is under reserved. This typo has been corrected in the hard copy.

Comment (CCSE): CPUC staff report has greater level of details on program statistics, such as Program Administrator (PA) performance and time to process applications.

Q (Ranji George, Air Quality Management District): Do you have any statistics on the installed cost? I know there're different elements in it and it varies by size. Are we hitting \$8 or below?

A (CCSE): This data is public and is on a spreadsheet. It is published on csi.powerclerk.com. It has the cost the customers paid, rebates associated with it and the size. You can parse it out however way you want.

Q (Ranji George, AQMD): I mean what's [the installed cost of systems that are] coming online? I know what you have in the past. What's [installed cost of] applications just received? Are you seeing the module price coming down?

A (CCSE): The PAs don't have a report on that. The CPUC is looking at it.

A (CPUC): One year of data is not enough.

Q (Cecilia Aguillon, Kyocera): What's the MW reservation of NSHP? Is it 8 or not 8?

A (CPUC): Reservations to date is 8mw in NSHP.

Q (Mckinley with California Solar Electric): I was told that it's a pilot program. Does it expire the end of this year? I heard that NSHP is being combined with CSI, and that the PAs are going to do the paperwork -- will that change the paperwork?

Does it mean Single Family Dwellings can go through CSI? Going through NSHP for single family is an arduous process.

A (CCSE): The NSHP is a continuous program, not a one-year pilot.

Administrators are switching from the CEC to the utilities. How does that impact paperwork and process? It's going to follow the NSHP program requirements. You can't flip flop the program just because the PAs are the same. To answer your question, that means single family still goes through NSHP if it's a new construction.

Utilities are going to run the NSHP program. That means for the San Diego territory, there'll be a different PA for NSHP and CSI. For SCE and PG&E, they'll be one and the same.

A (SCE): The NSHP and CIS are 2 different programs. The NSHP is governed by the NSHP Guidebook which is very different from the CSI Handbook. The programs have different applications and forms. For single homes, you can go to CSI if you've lived in the unit and have proof of residence.

Comment (CCSE): If you look back at CSI in January 1 2007, the application forms then are different from what they are today. Many of you have seen we've made some positive strides in simplifying the program. I believe the same is going to happen with the NSHP.

Q (Polly Shaw, Suntech): You have some great information on dropouts. How hard is it to get one more set of information? We're heading towards Q2 of 2008 where the 12- to 18-month reservation period comes due, and people might be looking for extensions because of suppliers or ITC. With ITC, it becomes more sensitive with timing. How hard is it to get information on who's asking for extension on a month-by-month basis. This will enable us to understand, by customer class and by period, the MW at risk of drop out and when they may come due. This could be done on a quarterly basis.

A (CCSE): The first part of the information is available in the public report on Powerclerk. It lets you look at reservation status that are 10 to 16-months old. It does not include the extension part. Currently, we don't have a data field on Powerclerk to indicate whether a project has an extension. It seems like a reasonable request. The PAs might be able to get it done.

Q (Godwin Aimua, Community Action Riverside): Of these residential customers, How many are low income? If not, When will this be extended to low income sector

A (CCSE): The program statistics presented does not call out low income or non-low income. There are two separate monetary carve-outs for the low income program -- a dedicated \$100 million for low income single-family and a dedicated for \$100 million for low income multifamily. Both of these allocations are going through the process. The

Single Family program is establishing the Program Administrators; the Multifamily Program is still developing particular aspects of the program. We anticipate we'll have specific incentives for low-income customers. They can go to the standard program, but they're waiting for the low incomes programs because there's more incentive per system size in the low-income programs.

Comment (CPUC): Many people ask me what are the income levels of the participants in the mainstream program? Our database does not track that. It's not a data field we collect from applicants. We don't know the economic demographics of the people who have gone through this program; we only have geographic information.

Comment (Sue Kateley, CALSEIA): There are challenges with the database that bothers me. I like the charts that you show at these forums, but when I try to use the Powerclerk database, there're a lot of errors. There're many systems with no installer names associated with them; there are systems with design factor much greater than 1. One has a design factor of 10 for at least a year; I bring this up at each forum but it continues to be there.

When I go to the listing of systems smaller than 10 kW, many are well over 10 kW, including a 674 kW system. I think it's a problem when the industry tries to extract data from a database but the data is wrong. I know the PAs update the online database every few weeks from the in-house database which is more accurate. I want to see more progress in cleaning up the data. It gets harder later when there are more applications; you have to deal with the structure now. I challenge the combination of the words reservation and installation. They are completely different. It's more important to think about what got installed. That's a measure of a progress.

A (CCSE): In defense of Installation vs. reservations, the data is in the slides and the staff report. How many installations are there? 19 MW last year; 14 MW this quarter. There are lots of installations in the 1st quarter. About the database, there're two different issues. One might ask "I see something in the database that doesn't make sense, for example, why does it have a reservation, but no installer?" The answer is: That's allowable, if it's non-res and >10 kW. It is not allowable when a project is completed. The first issue is we need more outreach and communications on why things are not populated. For the second issue, why are some fields should be populated but are not populated. We'll keep working on fixing both of those

Comment (Sue Kateley, CALSEIA): You can put in text that says, this cell is intentionally left blank. In terms of reservation vs. installation, you have a slide that shows historical reservation not installation. Those kinds of slides bother me.

A (CCSE): Questions do come up on what the activity level is on applications and not all applications make it to the reservation stage. There are dropouts.

Comment (Sue Kateley, CALSEIA): The application slide is not a good slide because it just says someone filed some paper

A (CCSE): We have another slide that shows actual capacity and installations. In terms of data integrity, we fix problems when we know it. If we don't know about it, we appreciate hearing about it.

Q (Sue Kateley, CALSEIA): Do you have a process of checking the data?

A (CCSE): Yes

Q (Sue Kateley, CALSEIA): Do you have to ask every time we see a problem? That's not a good system.

A (CCSE): Sometimes the errors are existing; for example they're old imports. This is not an excuse; it needs to be fixed. The best way to so it is raise the issues. The issue of data integrity has been switched from industry providing feedback to us, to CPUC running its own report and asks us to clean the database.

A (CPUC)- We continue to work on it. We're finding ways to modify the database to catch data entry error. It's a working progress and it is far better than before. Many blank fields are in the reservation review date, i.e. the date when applications are received. There're lots of blanks there. We look at every field that has a null value, and we ask for an explanation why they're not filled in.

[No questions from call-in participants]

PROCESS STUDY: MOVING FROM STEP 4 TO STEP 5

Q (Gary, Utility Conservation Service): What's PG&E's processing time?

A (PG&E): Our results are moving in the right direction but it's not as good as what SCE presented. If you look at the progress reports report, 88% of Edison reservations are processed within 30 days; PG&E is 58%. This is not where we want to be. We added some new staff in the beginning of February. Our goal is to get everything out in less than 2 weeks.

Comment (Utility Conservation Service): Currently it's running about 6 weeks.

Q (PG&E): For the reservation request? Or the incentive claim form?

A (UCS): Reservation request.

A (PG&E): That's not typical at all. We'll follow up on that.

Q (USC): How are we going to handle the upcoming months in the summer?

A (PG&E): Right now, since the beginning of April, we're starting to review applications within 10 days. Just to mention we have the second highest number of applications in the month of March (the highest was July). We have a volume issue. We are working on the "inventory" right now.

Comment (Sue Kateley, CALSEIA): I have received a lot fewer complaints from the CALSEIA membership.

Comment (Mckinley, California Soar Electric): Kudos to SCE; my applications are getting through much more quickly. With PG&E, my trouble is that I don't have a phone number that I can call. I don't get email responses either. Sometimes, weeks pass and there is no progress nor communications.

A (PG&E): The reservation request form that we send out has an email address with a project manager. If you're not hearing anything, write down my number. Chuck Hornbrook: 415 973 0082 and clhs@pge.com. For general things, for people in the community, we're setting up a number and will have a fully trained staff to answer their questions. The number is going to be on our website.

Comment (Mckinley, California Soar Electric): On behalf of Andy Black, there is a problem with the warranty issue change

A (PG&E): We're aware of that and will set up a meeting with Mr. Black offline.

Comment (CPUC): Regarding the caller who called in about his frustration with particular projects. That's a reasonable position to be frustrated by. On Page 34 of the report, the table gives installers a sense of where they are in terms of other installers. For example, if you get your reservation from PG&E in 14 days, that means you're doing very well; only 6% of people are like you. If you add up 6% with 52%, that's Chuck's 58% of reservations take less than 30 days. There're 37 % that takes up to 60 days.

An important column is the one that shows reservations that take greater than 60 days to process. In 2007, PG&E has 42%; now it's only 2%. We want to see it go down to 0%. That means if your application is over 60 days, you need to follow-up with PG&E. This gives you a way to figure out whether you're in a unique position or there's a backlog going on.

Comment (Kevin, RCC Solar): our problem is Getting someone we can call who can pick up the paperwork and chase after it. A lot of times we're getting stuff back We're getting stuff back that 30 sec phone calls can fix. It makes a big difference. My point of view, have more people on the desk to the problems then send a letter to my customer.

A (SCE): We have ramped up our customer service representatives. We do call when something is missing and we have to suspend an application. If something's missing, e.g. contract not signed, or a piece paper missing. We try to call and email. We try to ramp up

our customer service and be customer-friendly by providing multiple channels of communications. If anything is not happening right with the SCE program, I want to know about it. Bob Botkin: 626 633 3398. Email: Robert.botkin@sce.com.

SCE CSI help line: 866 584 7436. The line is 100% covered between 8-5 Monday to Friday.

Comment (CCSE)- Andrew McAllister, Director of Programs: (858) 244 7282, Andrew.McAllister@energycenter.org. John Supp: john.supp@energycenter.org, (858) 244 7288, Our statistics look pretty good and there's a reason for that. We have a lower number of applications and slightly smaller territory to cover.

Q (Joel Davidson): – In future reports, can we see the bottom line number of administrative spending in price/Watt, so we can measure your performance?

A (CPUC): We've looked at doing that in a number of different ways. We looked at the number of applications processed. There are challenges because of the difference in numbers is residential and non-residential applications. We didn't present this because we don't have a good way to present that.

There's a fair amount of time PAs have to spend before projects are complete. The numbers now will look strange. It'll continue to look very strange for a few years because it's early in the program. We'll take your suggestion and will try to come up with something.

Q (Cecilia Aguillon, Kyocera): What are the drop out rates of residential vs. non-residential?

A (PG&E): It's much lower on residential. There's a table in the report that shows the MW dropouts of residential vs. non-residential.

Juliette Anthony- You talk about applications, instead of MWs. One application could have 1 MW and another could have 4 kW. The number applications just show how overwhelmed you are, but it's MW that makes a difference, because that's what lower the incentive levels.

A (PG&E): – On average, those systems that dropped out were between 100 kW – 200 kW. The average system size for big box store is 100 – 200 kW. There were very few systems that are over 900 kW.

Juliette Anthony: I went over the PowerClerk data. A lot of MW dropouts seem to be attached to big systems, but I can't get that data.

CSI DATABASE TOOL UPDATE

[Questions are deferred to the Q&A panel]

SCE INTERCONNECTION ACTIVITY

Comment (PG&E): It's important to let us know what's going to happen in Q3 and Q4. PG&E interconnected 6500 systems in 2007. We think it'll be more this year, so that'll help Mark O'Leary staff up his team as necessary.

[Questions are deferred to the Q&A panel]

POTENTIAL PROGRAM CHANGES

Comment (Mckinley, California Soar Electric): The CSI contract state that the customer under penalty of perjury has read the CSI Handbook which you stated as 125 pages. We have issues with that -- customers don't want to sign the CSI contract because they don't want to say that they've read the 100+ page document.

A (PG&E): We're looking into the marketing and outreach team to provide a more simplified and user-friendly document. I'm not sure how much from a legal perspective that we have to include, but we'll investigate further.

Comment (Sue Kateley, CALSEIA): About the Advice Letter about the stranded dollars, we want to be involved in that. There might be details that we might want to consider which are: 1. Distribute the money, so it can be distributed to different companies, so not one company gets the rebates. Second, the Project Cost Affidavit is a problem from residential as well because companies have different cost data.

Comment (Andy Black, Ongrid Solar): It'd be helpful for companies with their own spreadsheets to have standard data format, so the data output can be uploaded directly, and people don't have to fill in the paperwork.

Comment (Sara Birmingham, Solar Alliance): About the database, I don't see real-time live data reporting yet. That should be a high priority.

Q (Judy Staley, REC Solar): I'm supportive of moving the dollars instead of MW when you have dropouts. About the dropout data, you give little percentage for dropout data. That doesn't match what we've been. Have you looked at the 1st quarter in 2007: how many applications came in, how many installed, % drop out from that period? We're supposed to have a workshop last October, but it never happened.

A (PG&E): I'll follow-up with other PAs and coordinate with CPUC.

A (CPUC): We looked at projects that reached the end of their implementation time. There're very few projects because we're 15 months old. The percentages are very low, probably in the 15% range. This is low compare to SGIP data. See page 39 of the report

Q (Judy Staley, REC Solar): There is no time-based data, only step-based in the report.

A (PG&E)- An action item for the PAs and CPUC is to see how to communicate this information to the community

Joel Davidson: For the ease of business transfer to other sites. I don't understand the reasoning behind it-- if a contractor doesn't do an engineering analysis or does an inaccurate preliminary analysis, you're going to allow installers make mistakes like this?

A (PG&E): We found that in some cases, people are trying to move portfolio locations. For example, they only have budget for 10 locations, and 1 of them doesn't work, so they bring in an 11th as part of the project. The engineering study doesn't happen until a few months later. This makes a difference for them when the step changes.

A (CCSE): There's a group looking at the Powerclerk data with the CPUC. The group has looked at aging-- different status of projects with different ages. We want to hear feedback from you on what reports you want to see from us,

Q (Ranji George, Air Quality Management District): We want to see solar improving cost. In your reporting, can we get information on how the modules are coming down in cost of the labor installed and balance of system?

A (SCE): Yes, we can do that. This is something that can be done today, but we need to come up with the metrics. The data is what it is; we don't audit it. The data is what we're given by the initial customer contract.

A (CCSE): The quality of the data depends on whether the marketplace gives us good data. The data does exist, but needs to be interpreted.

LUNCH

MARKETING AND OUTREACH UPDATE

[Questions are deferred to the Q&A panel]

PERFORMANCE DATA PROTOCOL (PDP) AND PERFORMANCE BASED INCENTIVE (PBI) UPDATE

[Questions are deferred to the Q&A panel]

UPDATE ON EXPECTED PERFORMANCE BASED BUYDOWN (EPBB) INCENTIVE CALCULATOR TOOL

[Questions are deferred to the Q&A panel]

REGULATORY UPDATES FROM CPUC

[Questions are deferred to the Q&A panel]

SOLAR PHOTOVOLTAIC PROGRAM

Comment (Sue Kateley, CALSEIA): I've asked a couple of times for copies of the Project Labor Agreement, so people who're interested can bid on these projects, but I've been unable to get them.

A (SCE): As of this morning, I've met with legal and our labor relations manager. I will have it tomorrow.

Q (Cecilia Aguillon, Kyocera): If you're trying to reduce the cost and expand the market, why don't you just do Feed-in Tariffs for 1 MW or above, and have the private sector install the PV? There's a Feed-in-Tariff bill right now (AB 1714), so there's a vehicle to buy the energy and the RECs from the private customers.

A (SCE): This program is one way of getting large scale PV. There're other ways and I'm not sure they're in conflict with one another.

Q (Stakeholder): How did you get the \$3.50/watt? The least I've seen is in the low \$6's. \$3.5 seems, especially with union labor, difficult. How's that determined and how do you expect to reach that?

A (SCE): We hired URS, our engineering consultants, to do a confidential market survey. We have quotes from vendors for complete materials, labor and complete installation rate. We feel that the \$3.50 can be met. The filing asks for \$5.05 in 2008 but starting in 2009, we will be committing \$3.50. For reasonableness review, we have a 10% adder. As long as we stay below \$3.85, the program should be deemed reasonable.

Q (Stakeholder): You mentioned that ratepayer funds might be shifted from CSI to this program. Is this part of this filing?

A (SCE): This is a separate application. In the current application, the funding is requested from bundled service customers. If the Commission deems reasonable, since customers pay for this and the CSI, it might make sense to take from CSI funding.

Q (Stakeholder): I'm concerned about roofs being pulled off private market by the utility. We'll talk with CALSEIA to make sure our market is protected. Is the \$875 million funding from your customers, not from the taxpayers?

A (SCE): Yes

Q (Stakeholder): If the funds are moved from CSI, then funds will be reduced to other installers? Is that the consequence?

A (SCE): The funding is requested from bundled service customers. As it's written right now, it'll not affect CIS. However, if deemed reasonable by the PUC, it might be taken from the CSI.

Comment (Joe Henri, Sunedison): I encourage you to grow the PV market, not shrinking it. I don't see language on that in the application and might raise a red flag. Edison ought to consider how to include the rest of the industry in the program, instead of doing things that might reduce funding for the program.

Q&A PANEL

Comment (Juliette Anthony): About the SCE application, I'm wondering if it's a legislative question. This goes against SB 1. I don't know if the CPUC has the authority.

A (SCE): This is all to be determined. This is only a proposal. It's subjected to PUC's review and comments, and your comments, so there's nothing definite at the moment.

Comment via Email (Juliette Anthony): How many MW were rolled over from SGIP funds in the beginning of the program?

A (PG&E): Yes, SGIP funds were moved over

Q via Phone (Juliette Anthony): How many SGIP MW absorbed the funding from level1? This is not in the Powerclerk.

A (CCSE): The number of MW associated in Step 1 for CCSE is 714 KW.

A (SCE): 2.75 MW

A (PG&E): SGIP data isn't in the Powerclerk and they need to be in it. Our target is to put this in the system by June.

A (CCSE): In the interim, SGIP statewide quarterly reports might have the information.

A (PG&E): The quarterly reports are on all of our websites.

Comment via Phone (Juliette Anthony): I feel that so much emphasis is on reservations, but not MW reserved or installed. It's different from the CEC data. The CEC data is easy for me to use. I can put a company in and find out how many they have reserved and installed. I wish it could be that way for the Powerclerk as well.

Comment (CCSE): Our territory has a lot of schools that absorbed all of Step 1. Almost all the dropouts in Step 1 are San Diego schools. Now there's a program that is suitable for the schools, and they want to get back in the program. . This doesn't address the stranded dollar issues. but some data requires additional inspection before you draw conclusions about it.

Comment via Phone (Juliette Anthony): I feel badly that there are so many dropouts according to page 28 of the original staff report. It seems like the levels were dropped based on reservations, not on proof of progress. Many of us try to get contracts signed, but that's difficult when levels drop so quickly based on reservations and many of the reservations drop out. It's difficult for small installers to keep up. One of SB 1 goals is to grow a solar industry, and that doesn't mean growing 15 companies in California.

A (CPUC): On Page 13 of this report (Table 3), we looked at the step table as it was originally assigned by the Commission in 2006. It assigned 1715 mw across the three PAs and customer classes. Of all the original MW per step, how many were actually given out in each step? For Edison, they originally gave out in 12.4 MW in Step 1, and then had about 7 MW of dropouts, so they currently have 5.5 MW in step 1. I can't tell you what the total installed is; Bob said 2.75 MW have been installed, so there's still about 2 MW still need to be installed in Step1. Of those that dropped out, they got added back in Steps 2, 3, or 4. You see that Steps 2-4 grew beyond their originally allocations. Instead of 30.8 available, there are 33 in Step 3. We won't know for a long time, how many MWs are paid or installed in Step 3 until we know how many will drop out. That'll take a long time to transpire. This table will continue to shift as MWs are dropped out from earlier steps. In the future, we can do three columns on the table with original, actual and installed.

Q (Polly Shaw, Suntech): Are we doing a workshop on dropouts. What's the timing?

A (PG&E): That's a great idea. We're just finding time among the others things like pre-conference hearing, implementing sb1 etc.

A (CCSE): There's an advice letter on what to do with stranded dollars. It's not exactly the same thing as a workshop. We want to understand from the industry, what really matters when it comes the dropouts? Do we care as much about the dropouts if there are no consequences? How do we handle the consequences because of the dropouts, e.g. stranded dollars, missed opportunities?

A (SCE): Is there interest out that there should be a method to pay through the original goal? That is, a method of payment that insured there's actual installed projects that receive money from that Step?

A (CPUC) – In terms of a workshop, the idea is not off the table. We need to first understand the problem more before a workshop. We're releasing the data to be as transparent as possible. Now it's available to the public. You can contact staff offline

and give us feedback on how we need to be thinking about this. In terms of timing, it depends on the myriad of priorities in the rulemaking. Parties have a chance to comment on that, we accepted pre-conference statements, and the ALJ will be hearing directly from parties on priorities for the next quarters.

Q (Sue Kateley, CALSEIA): I want to put the stranded dollars as a high priority. The table you showed, if you look at the 1st bucket, there's 0 residential in that bucket. Is it an inherent problem in the program design?

A (CPUC): The steps started in 2006 and at that time the program was only open to non-residential customers because residential customers were funded through ERP, so there's no surprise when there're no dropouts in residential.

Comment (Sue Kateley, CALSEIA): We need on our next agenda something to do with a sustainable solar industry. That's another goal of the SB1, it's not just the 3000 MW goal. We need to pay attention to that; if not, we'll all be doing SCE's projects. Also, in the future, we should have more time to hear from the industry.

Comment (Steve Chadima, Energy innovation) – One of the sources of frustration embodies in your table in Page 39 that lists the stranded dollars. There's \$100 million in missing dollars; they're tied up and not materialize. In your stranded table, it just disappeared. We need to think of how to address the issue. I understand it's impossible to turn back the clock, but adding money in the current step so more projects will be funded will go a long way.

A (CPUC): You provided an excellent summary of what the issue is. It's about \$92 million that was funded through SGIP that won't be funded through CSI without a change in the CSI program. The CSI program is legislatively authorized to spend a certain amount of the money that's associated with the step money that's paid for pre-CSI. That's about \$92 million left. The magnitude of the program is recently much clearer to us.

A (PG&E): Regarding to Juliette Anthony's question, PG&E has 10 MW installed of those SGIP projects.

Q (Stakeholder): Has the CPUC talked to the vendors or the customers to get background information [on the dropouts] so we can make better future decisions?

A (CCSE): We collect general information for this type of dropouts; we capture the reasoning and input them in our internal database. However, the validity of that is very slim. It depends on which group you talk to: owner, host customer or installer integrator. Each might have a different reason why it dropped out. We typically only get 1 reason, and 90% is usually system economics. That's the data we have, but I can't tell you whether that answer came from the applicant, owners or integrator.

A (PG&E): With some of our bigger systems, we're talking with the SGIP Measurement and Evaluation consultants to identify that from the SGIP dataset. Some work has been done, so we won't be reinventing the wheel. In terms of priority, to date, there're not a lot of measurement and evaluation of the CSI program. There's money spent on M&E on the SGIP, but we hope that part of the pre-conference hearing is to discuss prioritizing evaluation of the program.

Q (CPUC): Is there any specific things you're looking for besides why they drop out?

A (Stakeholder): A qualitative understanding of the dynamics of the market place. This program is priming the market. One of the goals is building a sustainable market. Getting qualitative information is just as important as the data.

Comment (Liz merry, Verve Solar Consulting): On the database, there are many steps supporting administration. Are the stakeholders involve with this process, including consumers, installers, the industry itself? I'm hoping they can be involved. The database needs to be transparent, accurate and easy to use.

A (CCSE): We didn't add 15 unique things to muck up the process flow. It's just taking the existing names, and we ask if it is good to process at this stage, or not good, such that it looks a lot more transparent on both sides: is it sitting on the PA side, or the customer side? We didn't create arbitrary steps, just explanatory steps to the existing ones.

A (PG&E): One of our goals is to get beta testing from folks outside of the PAs and CPUC. We do want to get your feedback.

A (SCE): We want this database to be user-friendly and have all the information you want, so it's vital to give us feedback.

Q (Ranji George, Air Quality Management District): The staff report doesn't discuss goals of the CSI, namely creating a sustainable market. Given the politics of this state, I don't think ratepayers will endlessly subsidize solar. In the next report, perhaps add a section on how we are progressing towards the sustainability goal. One way is to track costs: module cost, BOS cost and labor cost, and see if they're going down. Second, is how to ensure the quality of the installers? The PBI may weed out poor installers; for those [systems] not in PBI may not be installed poorly. In the 80s, 5-10% of solar hot water installations are bad and create a bad name for the industry. What is the CSI doing to make sure the installers meet certain minimum standards?

A (SCE): The installers are required to have contractor license. They must have a business of good record with the state treasurer. They must register with the CEC. The CSI program does inspections to verify eligibility and compliance to the CSI program: whether they're using panels and inverters certified by the CEC, whether they're paid incentive based on the CEC ratings. We're verifying the compliance with the program. We note anything that's unsafe, but we don't evaluate quality. We make sure the

equipment is from the right manufactures; the number of panels, orientation and tilt are what they say. If installations are out of the compliance requirement, then we have a strike policy.

A (CCSE): The PAs try to understand in the last working group on what role we could play in the installer quality. There are existing organizations: Better Business Bureau and state contractor license board. If you want us to go further, there're other organizations, e.g. CALSEIA and NABCEP that provides information about quality installers. We don't regulate the installer community through the CSI program. We have considered it, but we don't have a better solution than the systems that already exist.

About cost data, the program collects and publishes total system cost data. Internally, we collect project component cost data. There's a very contentious aspect to requiring component cost. The majority is fine with the gross cost, but when it comes to specific components, there's significant push back in the market place. We're actively figuring out how to accomplish what you're talking about and ensure the market is interested and willing to comply.

A (PG&E): The report should target more to stakeholders. In terms of quality of the installers, we provide training. The inspections are there not to be a burden to the installers, but we want to have a threshold. It's not a high level of quality control. If the ICF doesn't match the installations, it could be an education issue which we've talked about in marketing and outreach; it could be market issue—that's why we have relationships with CALSEIA to find out what's going on with things.

A (CPUC): The CEC has the responsibility to establish the SB1 guidelines. These guidelines apply to these three PAs and dozens of POU programs, so there's some consistency statewide about what equipment to use, what warranty requirements, what eligibility list you have to be on. The legislature intentionally did that. On Page 21 of the staff report, there's a link to this report. It's pretty comprehensive, about 30 pages.

We looked at the cost data and it has many problems. In this staff report, we're not comfortable publishing data that has holes in it. Until we have time to go through the data to figure out why the fields are empty, we'll not publish it. For programs that are older, eg. SGIP, there're M&E studies, that has looked hard at the data of hundreds of systems installed, and that data is publicly available. When we have more than 33 MW installed, we'll have better data, so it's a temporary problem. We care about the money, but the data is not ready yet.

Comment (Kevin from RCC Solar): The industry has to take responsibility for the drop out money. As an industry, we can stop that. If we know who has these big numbers of dropouts, we'll stick [CALSEIA] on them.

A (CCSE): Installers with cancelled project should be public data on csi.powerclerk.com weekly report, so long as the project reaches a step where the installer field is required. If you look at earlier reports, there's a large percentage of dropouts early in the reservation

process. When a reservation is established, they don't have to provide an installer. If they cancel the project before the next step, there won't be installer information. A commercial or residential customer can receive reservation without providing installer or seller information.

Comment (Judy Staley, REC Solar): About the price data, modules and inverter price data is all available by Solarbuzz. We sell on a lump sum basis, so you're not going to get accurate data because it's data we don't create or provide.

A (CPUC): We're aware of it. We understand we're not collecting accurate information, and that's why we're not publishing the data.

A (CPUC): Solarbuzz has module and inverter prices, but not BOS. As a program, we can't push the global module market, but we're just trying to address the BOS cost. Unless we understand the BOS cost, we can't fully do our jobs. We can't know the BOS cost unless you all give us the information.

A (CCSE): We get a total cost, we know what the average cost of the product is from Solarbuzz, the delta is BOS + labor + Permits + taxes. We might have a methodology that can achieve a similar result.

Comment (Sara Birmingham, Solar Alliance): One way to do it is through the M&E program, by comparing Solarbuzz data, collected data and price trends over the years.

A (CPUC): We'll address that in M&E. We have been discussing internally about holding workshops to address BOS. We don't understand the different buckets are within the BOS, e.g. administration cost. No one has done a good job quantifying that. We will put this as a priority and will be holding workshops on this issue.

Q (Stakeholder): Why you need to know?

A (Polly Shaw, Suntech, Formerly CPUC): The CEC and CPUC try to understand where in the different categories the price decline is. What is the component cost vs. labor cost? Germany's installed cost is so much less and you're able to break down what the components are, but you don't have the ability to do that here. There's a policy interest to break down the labor vs. BOS cost to see if market transformation is happening to either or both.

Q (Stakeholder): You don't want installers to charge a set rate if the cost of the system is going down?

A (Polly Shaw, Suntech, Formerly CPUC): That's not the intent of the CPUC. We just want to provide more information in the market place. We're not trying to squeeze anybody.

Comment (Stakeholder): If we do have to provide a project cost breakdown worksheet, I would like SCE and PG&E to accept the same thing. SCE accepts a printout of the project component page of the CSI database; PG&E doesn't accept a printed component page. It's the exact the same information. It used to print, but it doesn't anymore.

A (PG&E): I agree. They should be the same. We'll explore this together.

Comment (Janine, Mitsubishi Electric): From a manufacturer point of view, it's valuable to have the information on BOS. This will help us to develop the products that make the installation time faster, so integrators can make more money when the products work better.

A (CCSE): There're parties that want the information, CPUC, manufacturer; there're groups that don't want to provide. This is a contentious issue. We can't solve it today, but we've captured a lot of people who're interested in this.

A (Polly Shaw, Suntech, Formerly CPUC): PAs are open to new proposals, if you can come up with a more easier system that get at the same public policy intent.

Comment (Stakeholder): To get that data, you can do a confidential survey once a year from your installer and make sure they know that the information won't be shared with public.

A (CPUC): This can be done under M&E. The result will be public

Comment (Sue Kateley, CALSEIA): We don't object to providing data. We object to spending time to give you meaningless data. There're cheap ways to do this: surveys, invoices, Solarbuzz, etc. The current system has a large transaction cost; this is a fraction of the BOS cost.

Q (Polly Shaw, Suntech): I have a process question. There're a lot of data concerns. We have a short timeline before the 2009 legislative review. We need data for the program. The program has 5% for administration and 5% for M&E. As the program progresses, there's less need for outreach. Could the PAs help speed up the M&E by submitting and Advice Letter to use on short and defined M&E projects to help staff clear up some questions? COL 22 gives PA the ability to move on to M&E; PA should spend no more than 5% on administration until the Commission addresses M&E in Phase 2. The Commission addressed phase 2 and it has ended, however, there's no discussion on M&E. It leaves open a process window; can you propose a tightly-defined project, eg. clean-up of data concerns, or M&E questions that could be needed in the near term while the staff and stakeholders focus on the cost-benefit methodology for the long term plans.

A (PG&E): This is something we want to look at.

A (CPUC): That's a high priority. We're discussing M&E right now. We're discussed most of the issues that are being discussed here today. We're getting close in terms of how to and where to spend the money.

A (CPUC): You'll have an opportunity to comment on how to spend the M&E budget.

Comment (Stakeholder): The Shading Subcommittee spent many hours coming up with great recommendations on how to improve the shading methodology, but I want to see it being implemented.

A (CCSE): The recommendations were submitted and PUC gave us the latitude to implement them. However, the decision took place around the time the CEC recommendations came up, and these recommendations were not adopted in SB1 guidelines, so they were tabled. We're meeting with the CEC on SB1 changes to the calculator, of which shading is an important aspect. We compiled information about methodology, cost and time, and we'll be presenting to the CEC at that meeting.

Q via phone (Gary Hemlin): For PG&E, is TOU rate schedule E-6 going to be the rate schedule for 2009 for solar?

A (PG&E): The current solar-friendly E-6, published on March 1, will for this year and next year. The general rate case isn't until 2010.

Q via phone (Gary Hemlin): What energy efficiency upgrades are required for solar participants? What are the three items for upgrade in the package?

A (PG&E): There are no specific measures. You need to go through an energy audit at the residential level.

SCE Announcement: If you have more questions, please email: Csigroup@sce.com

Q (Mckinley, California Solar Electric): The bucket is getting ready to drop in the SCE territory for residential applications. There's no way to run an EPBB on a dropped bucket. The example given is that you make a reservation in at this level, but the example is always the system getting larger. Most people don't reserve a system at a lower rebate and put in a larger system to get more rebates at the lower rebate. There's no way to submit paperwork regarding this. If there's any system change, I have to run a EPBB, eg inverter, shade, tilt changes, anything changes, then we run a new EPBB that is inaccurate. What's the paperwork that I submit for this rebate?

A (CCSE): This issue came up as a result of us eliminating some paperwork in the handbook. Before you had to submit a revised incentive calculation worksheet. We removed that in favor of the EPBB. Unfortunately, the EPBB doesn't do splits like this (Powerclerk will start to report splits). For submitting paperwork today, you first look at Section 3.2 of the handbook to see if you need to submit an EPBB or not. If you will have

to submit a new one (eg. system change), we have your incentive calculation worksheet, and we'll internally recalculate everything. We'll communicate back to you what that is.

Comment (Sue Kateley, CALSEIA): Please leave more time for Q&A in the next meeting. I'd be happy to work with the PAs on the next meeting agenda.